

INFORMATION DISCLOSURE
CITATION IN AN
APPLICATION



(PTO-1449)

ATTY. DOCKET NO.
6217/Consilium/DV

SERIAL NO.
09/927,444

RECEIVED
NOV 19 2002
TC 2800 MAIL ROOM

APPLICANT
Nicholas A. WARD et al.

FILING DATE
August 13, 2001

GROUP
2812

U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	4,796,194	01/03/89	Atherton			08/20/86
	5,089,970	02/18/92	Lee et al.			10/05/89
	5,108,570	04/28/92	Wang			03/30/90
	5,220,517	06/15/93	Sierk et al.			08/31/90
	5,236,868	08/17/93	Nulman			04/20/90
	5,260,868	11/09/93	Gupta et al.			10/15/91
	5,295,242	03/15/94	Mashruwala et al.			11/02/90
	5,309,221	05/03/94	Fischer et al.			12/31/91
	5,329,463	07/12/94	Sierk et al.			01/13/93
	5,367,624	11/22/94	Cooper			06/11/93
	5,398,336	03/14/95	Tantry et al.			06/16/93
	5,402,367	03/28/95	Sullivan et al.			07/19/93
	5,408,405	04/18/95	Mozumder et al.			09/20/93
	5,410,473	04/25/95	Kaneko et al.			12/16/92

RECEIVED

JAN 21 2003

Technology Center 2100

FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
	01-283934	11/15/89	Japan			X	
	2,050,247	08/29/91	Canada			X	

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

Dishon, G., D. Eylon, M. Finarov, and A. Shulman. "Dielectric CMP Advanced Process Control Based on Integrated Monitoring." Ltd. Rehoveth, Israel: Nova Measuring Instruments.

Runyan, W. R., and K. E. Bean. 1990. "Semiconductor Integrated Circuit Processing Technology." pg. 48. Reading, Massachusetts: Addison-Wesley Publishing Company.

EXAMINER

[Signature]

DATE CONSIDERED

1/9/04

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

INFORMATION DISCLOSURE CITATION IN AN APPLICATION



(PTO-1449)

ATTY. DOCKET NO.
6217/Consilium/DV

SERIAL NO.
09/927,444

APPLICANT
Nicholas A. WARD et al.

FILING DATE
August 13, 2001

GROSS
2812

RECEIVED
NOV 19 2002
TC 2800 MAIL ROOM

U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	5,490,097	02/06/96	Swenson et al.			08/06/93
	5,495,417	02/27/96	Fuduka et al.			03/16/93
	5,497,316	03/05/96	Sierk et al.			04/04/95
	5,503,707	04/02/96	Maung et al.			09/22/93
	5,508,947	04/16/96	Sierk et al.			05/13/94
	5,629,216	05/13/97	Wijaranakula et al.			02/27/96
	5,657,254	08/12/97	Sierk et al.			04/15/96
	5,661,669	08/26/97	Mozumder et al.			06/07/95
	5,694,325	12/02/97	Eukuda et al.			11/22/95
	5,698,989	12/16/97	Nulman			09/13/96
	5,719,495	02/17/98	Mostchi			06/05/96
	5,740,429	04/14/98	Wang et al.			07/07/95
	5,751,582	05/12/98	Saxena et al.			09/24/96
	5,754,297	05/19/98	Nulman			04/14/97
	5,764,543	06/09/98	Kennedy			06/16/95

RECEIVED

JAN 21 2003

Technology Center 2100

FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
	2,165,847	08/29/91	Canada			X	
	2,194,855	08/29/91	Canada			X	

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	Zorich, Robert. 1991. <i>Handbook of Quality Integrated Circuit Manufacturing</i>. pp. 464-498 San Diego, California: Academic Press, Inc.
	Rampalli, Prasad, Arakere Ramesh, and Nimish Shah. 1991. <i>CEPT—A Computer-Aided Manufacturing Application for Managing Equipment Reliability and Availability in the Semiconductor Industry</i>. New York, New York: IEEE.
EXAMINER	DATE CONSIDERED 1/9/01

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

INFORMATION DISCLOSURE
CITATION IN AN
APPLICATION
(PTO-1449)



ATTY. DOCKET NO.
6217/Consilium/DV

SERIAL NO.
09/927,444

APPLICANT
Nicholas A. WARD et al.

FILING DATE
August 13, 2001

GROUP
2812

U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	5,808,303	09/15/98	Schlagheck et al.			01/29/97
	5,838,595	11/17/98	Sullivan et al.			11/25/96
	5,883,437	03/16/99	Maruyama et al.			12/28/95
	5,910,011	06/08/99	Cruse			05/12/97
	6,054,379	04/25/00	Yau et al.			02/11/98

FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
	05-151231	06/18/93	Japan				X
	05-216896	08/27/93	Japan				X
	05-266029	10/15/93	Japan				X
	06-110894	04/22/94	Japan				X
	06-176994	06/24/94	Japan				X
	06-252236	09/09/94	Japan				X
	06-260380	09/16/94	Japan				X
	08-149583	06/07/96	Japan			X	
	09-34535	02/07/97	Japan			X	
	EP 0877308 A2	11/11/98	Europe			X	
	11-67853	03/09/99	Japan			X	
	1072967A3	11/21/01	Europe			X	

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	Moyne, James R., Nauman Chaudhry, and Roland Telfeyan. 1995. "Adaptive Extensions to a Multi-Branch Run-to-Run Controller for Plasma Etching." <i>Journal of Vacuum Science and Technology</i> . Ann Arbor, Michigan: University of Michigan Display Technology Manufacturing Center.
	Moyne, James, Roland Telfeyan, Arnon Hurwitz, and John Taylor. August 1995. "A Process-Independent Run-to-Run Controller and Its Application to Chemical-Mechanical Planarization." <i>SEMI/IEEE Advanced Semiconductor Manufacturing Conference and Workshop</i> . Ann Arbor, Michigan: The University of Michigan, Electrical Engineering & Computer Science Center for Display Technology & Manufacturing.
EXAMINER	DATE CONSIDERED 1/9/04

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

**INFORMATION DISCLOSURE
CITATION IN AN
APPLICATION**



(PTO-1449)

ATTY. DOCKET NO.
6217/Consilium/DV

SERIAL NO.
09/927,444

RECEIVED
JAN 21 2003

Technology Center 2100

APPLICANT
Nicholas A. WARD et al.

FILING DATE
August 13, 2001

GROUP
2812

U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT APPLICATION NO.	FILING DATE	NAME	TITLE	CLASS	SUB- CLASS
	09/363,966	07/29/99	Arackaparambil et al.	Computer Integrated Manufacturing Techniques		
	09/469,227	12/22/99	Somekh et al.	Multi-Tool Control System, Method and Medium		
	09/619,044	07/19/00	Yuan	System and Method of Exporting or Importing Object Data in a Manufacturing Execution System		
	09/637,620	08/11/00	Chi et al.	Generic Interface Builder		
	09/656,031	09/06/00	Chi et al.	Dispatching Component for Associating Manufacturing Facility Service Requestors with Service Providers		

FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUB- CLASS	Translation	
						Yes	No

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	Zhou, Zhen-Hong and Rafael Reif. August 1995. "Epi-Film Thickness Measurements Using Emission Fourier Transform Infrared Spectroscopy—Part II: Real-Time <i>in Situ</i> Process Monitoring and Control." IEEE Transactions on Semiconductor Manufacturing, Vol. 8, No. 3.
	Telfeyan, Roland, James Moyne, Nauman Chaudhry, James Pugmire, Scott Shellman, Duane Boning, William Moyne, Arnon Hurwitz, and John Taylor. October 1995. "A Multi-Level Approach to the Control of a Chemical-Mechanical Planarization Process." Minneapolis, Minnesota: 42 nd National Symposium of the American Vacuum Society.
	Chang, E., B. Stine, T. Maung, R. Divecha, D. Boning, J. Chung, K. Chang, G. Ray, D. Bradbury, O. S. Nakagawa, S. Oh, and D. Bartelink. December 1995. "Using a Statistical Metrology Framework to Identify Systematic and Random Sources of Die- and Wafer-level ILD Thickness Variation in CMP Processes." Washington, D.C.: International Electron Devices Meeting.

EXAMINER

DATE CONSIDERED

1/9/04

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

INFORMATION DISCLOSURE CITATION IN AN APPLICATION

(PTO-1449)



ATTY. DOCKET NO.
6217/Consilium/DV

SERIAL NO.
09/927,444

RECEIVED
JAN 21 2003

APPLICANT
Nicholas A. WARD et al.

Technology Center 2100

FILING DATE
August 13, 2001

GROUP
2812

U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT APPLICATION NO.	FILING DATE	NAME	TITLE	CLASS	SUB- CLASS
	09/655,542	09/06/00	Yuan	System, Method and Medium for Defining Palettes to Transform an Application Program Interface for a Service		
	09/725,908	11/30/00	Chi et al.	Dynamic Subject Information Generation in Message Services of Distributed Object Systems		
	09/800,980	03/08/01	Hawkins et al.	Dynamic and Extensible Task Guide		
	09/811,667	03/20/01	Yuan et al.	Fault Tolerant and Automated Computer Software Workflow		

FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUB- CLASS	Translation	
						Yes	No

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

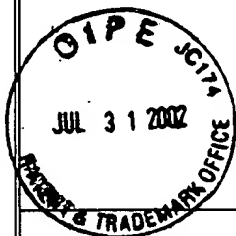
	Dishon, G., M. Finarov, R. Kipper, J.W. Curry, T. Schraub, D. Trojan, 4 th Stambaugh, Y. Li and J. Ben-Jacob. February 1996. "On-Line Integrated Metrology for CMP Processing." Santa Clara, California: VMIC Speciality Conferences, 1 st International CMP Planarization Conference.
	Smith, Taber, Duane Boning, James Moyne, Arnon Hurwitz, and John Curry. June 1996. "Compensating for CMP Pad Wear Using Run by Run Feedback Control." Santa Clara, California: VLSI Multilevel Interconnect Conference.
	Boning, Duane, William Moyne, Taber Smith, James Moyne, Roland Telfeyan, Arnon Hurwitz, Scott Shellman, and John Taylor. October 1996. "Run by Run Control of Chemical-Mechanical Polishing." <i>IEEE Trans. CPMT (C)</i> , Vol. 19, No. 4, pp. 307-314.
	SEMI. [1986] 1996. "Standard for Definition and Measurement of Equipment Reliability, Availability, and Maintainability (RAM)." SEMI E10-96.

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

INFORMATION DISCLOSURE
CITATION IN AN
APPLICATION
(PTO-1449)



ATTY. DOCKET NO.
6217/Consilium/DV

SERIAL NO.
09/927,444

RECEIVED

JAN 21 2003

Technology Center 2100

APPLICANT
Nicholas A. WARD et al.

FILING DATE
August 13, 2001

GROUP
2812

U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT APPLICATION NO.	FILING DATE	NAME	TITLE	CLASS	SUB- CLASS

FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUB- CLASS	Translation
						Yes No

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	Van Zant, Peter. 1997. <i>Microchip Fabrication: A Practical Guide to Semiconductor Processing</i>. Third Edition, pp. 472-478. New York, New York: McGraw-Hill.
	Campbell, W. Jarrett, and Anthony J. Toprac. February 11-12, 1998. "Run-to-Run Control in Microelectronics Manufacturing." Advanced Micro Devices, TWMCC.
	Edgar, Thomas F., Stephanie W. Butler, Jarrett Campbell, Carlos Pfeiffer, Chris Bode, Sung Bo Hwang, and K.S. Balakrishnan. May 1998. "Automatic Control in Microelectronics Manufacturing: Practices, Challenges, and Possibilities." Automatica, Vol. 36, pp. 1567-1603, 2000.
	Moyne, James, and John Curry. June 1998. "A Fully Automated Chemical-Mechanical Planarization Process." Santa Clara, California: VLSI Multilevel Interconnection (V-MIC) Conference.
	SEMI. July 1998. <i>New Standard: Provisional Specification for CIM Framework Domain Architecture</i>. Mountain View, California: SEMI Standards. SEMI Draft Doc. 2817.
	Consilium. August 1998. <i>Quality Management Component: QMC™ and QMC-Link™ Overview</i>. Mountain View, California: Consilium, Inc.
	Chemali, Chadi El, James Moyne, Kareemullah Khan, Rock Nadeau, Paul Smith, John Colt, Jonathan Chapple-Sokol, and Tarun Parikh. November 1998. "Multizone Uniformity Control of a CMP Process Utilizing a Pre and Post-Measurement Strategy." Seattle, Washington: SEMETECH Symposium.
	Consilium. 1998. <i>FAB300™</i>. Mountain View, California: Consilium, Inc.
	Khan, Kareemullah, Victor Solakhain, Anthony Ricci, Tier Gu, and James Moyne. 1998. "Run-to-Run Control of ITO Deposition Process." Ann Arbor, Michigan.

EXAMINER

DATE CONSIDERED

1/9/04

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

**INFORMATION DISCLOSURE
CITATION IN AN
APPLICATION
(PTO-1449)**



ATTY. DOCKET NO.
6217/Consilium/DV

SERIAL NO.
09/927,444

RECEIVED

JAN 21 2003

Technology Center 2100

APPLICANT
Nicholas A. WARD et al.

FILING DATE
August 13, 2001

GROUP
2812

U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT APPLICATION NO.	FILING DATE	NAME	TITLE	CLASS	SUB- CLASS

FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUB- CLASS	Translation	
						Yes	No

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	Consilium. January 1999. "FAB300™: Consilium's Next Generation MES Solution of Software and Services which Control and Automate Real-Time FAB Operations." <u>www.consilium.com/products/fab300_page.htm#FAB300 Introduction</u>
	Consilium. July 1999. "Increasing Overall Equipment Effectiveness (OEE) in Fab Manufacturing by Implementing Consilium's Next-Generation Manufacturing Execution System - MES II." Semiconductor Fabtech Edition 10.
	Consilium Corporate Brochure. October 1999. <u>www.consilium.com</u>
	Moyne, James. October 1999. "Advancements in CMP Process Automation and Control." Hawaii: (Invited paper and presentation to) Third International Symposium on Chemical Mechanical Polishing in IC Device Manufacturing: 196 th Meeting of the Electrochemical Society.
	Consilium. November 1999. <u>FAB300™ Update.</u>
	SEMI. 2000. "Provisional Specification for CIM Framework Scheduling Component." San Jose, California. SEMI E105-1000.
	Lee, Brian, Duane S. Boning, Winthrop Baylies, Noel Poduje, Pat Hester, Yong Xia, John Valley, Chris Koliopoulus, Dale Hetherington, HongJiang Sun, and Michael Lacy. April 2001. "Wafer Nanotopography Effects on CMP: Experimental Validation of Modeling Methods." San Francisco, California: Materials Research Society Spring Meeting.
	NovaScan 2020. February 2002. "Superior Integrated Process Control for Emerging CMP High-End Applications."
EXAMINER	DATE CONSIDERED
<i>MA</i>	<i>1/9/04</i>

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

INFORMATION DISCLOSURE CITATION IN AN APPLICATION



(PTO-1449)



ATTY. DOCKET NO.
6217/Consilium/DV

SERIAL NO.
09/927,444

APPLICANT
Nicholas A. WARD et al.

FILING DATE
August 13, 2001

GROUP
2812

U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
_____	4,698,766	10/06/87	Entwistle et al.			05/17/85
_____	4,967,381	10/30/90	Lane et al.			07/06/89
_____	5,208,765	05/04/93	Turnbull			07/20/90
_____	5,226,118	07/06/93	Baker et al.			01/29/91
_____	5,231,585	07/27/93	Kobayashi et al.			06/20/90
_____	5,420,796	05/30/95	Weling et al.			12/23/93
_____	5,469,361	11/21/95	Moyne			06/06/94
_____	5,525,808	06/11/96	Irie et al.			12/20/94
_____	5,586,039	12/17/96	Hirsch et al.			02/27/95
_____	5,603,707	02/18/97	Trombetta et al.			11/28/95
_____	5,664,987	09/09/97	Renteln			09/04/96
_____	5,812,407	09/22/98	Sato et al.			08/12/97
_____	5,828,778	10/27/98	Hagi et al.			06/12/96
_____	5,832,224	11/03/98	Fehskens et al.			06/14/96

FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
_____	61-171147	08/01/86	Japan				X
_____	6-184434	07/05/94	Japan				X
_____	0 621 522 A2	10/26/94	Europe			X	
_____	8 50161	02/20/96	Japan				X
_____	8-304023	11/22/96	Japan				X

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

_____	February 1984. "Method and Apparatus of in Situ Measurement and Overlay Error Analysis for Correcting Step and Repeat Lithographic Cameras." <i>IBM Technical Disclosure Bulletin</i> , pp. 4855-4859.
_____	October 1984. "Method to Characterize the Stability of a Step and Repeat Lithographic System." <i>IBM Technical Disclosure Bulletin</i> , pp. 2857-2860.

EXAMINER

DATE CONSIDERED

1/9/01

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

INFORMATION DISCLOSURE CITATION IN AN APPLICATION



PTO-1449)

ATTY. DOCKET NO.
6217/Consilium/DVSERIAL NO.
09/927,444APPLICANT
Nicholas A. WARD et al.FILING DATE
August 13, 2001GROUP
2812

U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	5,839,964	01/12/99	Wang et al.			10/25/96
	5,863,807	01/26/99	Iang et al.			03/15/96
	5,870,306	02/09/99	Harada			06/13/97
	5,903,455	05/11/99	Sharpe, Jr. et al.			12/12/96
	5,916,016	06/29/99	Bothra			10/23/97
<i>ex</i>	5,923,553	07/13/99	Yi			10/05/96
	5,930,138	07/27/99	Lin et al.			09/10/97
	5,940,300	08/17/99	Ozaki			05/08/97
	5,960,214	09/28/99	Sharpe, Jr. et al.			12/04/96
	5,963,881	10/05/99	Kahn et al.			10/20/97
	5,982,920	11/09/99	Tobin, Jr. et al.			01/08/97
	6,041,270	03/21/00	Steffan et al.			12/05/97
	6,078,845	06/20/00	Friedman			11/25/96
	6,112,130	08/29/00	Fukuda et al.			10/01/97
	6,148,246	11/14/00	Kawazome			06/10/98

FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
	0 747 795 A2	12/11/96	Europe			X	
	10-173029	06/26/98	Japan				X
	0 895 145 A1	02/03/99	Europe			X	
	11 126816	05/11/99	Japan				X

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	Schmid, Hans Albrecht. 1995. "Creating the Architecture of a Manufacturing Framework by Design Patterns." Austin, Texas: OOPSLA.
	Baliga, John. July 1999. "Advanced Process Control: Soon to be a Must." Cahners Semiconductor International. www.semiconductor.net/semiconductor/issues/issues/1999/jul99/docs/feature1.asp

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

INFORMATION DISCLOSURE
CITATION IN AN
APPLICATION
(PTO-1449)



ATTY. DOCKET NO.
6217/Consilium/DV

SERIAL NO.
09/927,444

APPLICANT
Nicholas A. WARD et al.

FILING DATE
August 13, 2001

GROUP
2812

U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
_____	6,175,777	01/16/01	Kim			01/16/98
_____	6,178,390	01/23/01	Jun			09/08/98
_____	6,185,324	02/06/01	Ishihara et al			01/31/95
_____	6,192,291	02/20/01	Kwon			10/08/98
_____	6,197,604	03/06/01	Miller et al.			10/01/98
_____	6,211,094	04/03/01	Iun et al			08/23/99
_____	6,226,792	05/01/01	Goiffon et al.			10/14/98
_____	6,230,069	05/08/01	Campbell et al.			06/26/98
_____	6,236,903	05/22/01	Kim et al.			09/25/98
_____	6,240,330	05/29/01	Kurtzberg et al.			05/28/97

FOREIGN PATENT DOCUMENTS

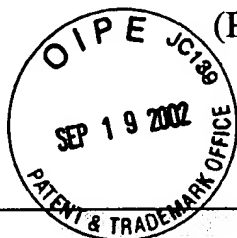
EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
_____	11,135,601	05/21/99	Japan				X
_____	WO 00/05759	02/03/00	WO			X	
_____	WO 00/35063	06/15/00	WO			X	

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

_____	July 5, 2001. "Motorola and Advanced Micro Devices Buy ObjectSpace Catalyst Advanced Process Control Product for Five Wafer Fabs." Semiconductor FABTECH. www.semiconductorfabtech.com/industry.news/9907/20.07.shtml
_____	October 15, 2001. Search Report prepared by the Austrian Patent Office for Singapore Patent Application No. 200004286-1.
_____	Johnson, Bob. June 10, 2002. "Advanced Process Control Key to Moore's Law." Gartner, Inc.
_____	July 9, 2002. International Search Report prepared by the European Patent Office for PCT/US01/24910.
_____	July 29, 2002. International Search Report prepared by the European Patent Office for PCT/US01/27407.
_____	Sonderman, Thomas. 2002. "APC as a Competitive Manufacturing Technology: AMD's Viston for 300mm." AEC/APC.
EXAMINER	DATE CONSIDERED
	1/19/04

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

**INFORMATION DISCLOSURE
CITATION IN AN
APPLICATION
(PTO-1449)**



ATTY. DOCKET NO.
6217/Consilium/DV

SERIAL NO.
09/927,444

APPLICANT
Nicholas A. WARD et al.

FILING DATE
August 13, 2001

GROUP
2812

U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	6,240,331	05/29/01	Yun			08/18/98
	6,248,602	06/19/01	Bode et al.			11/01/99
	6,252,412	06/26/01	Talbot et al.			01/08/99
	6,263,255	07/17/01	Tan et al.			05/18/98
	6,292,708	09/18/01	Allen et al.			06/11/98
	6,298,274	10/02/01	Inoue			09/01/99
<i>W</i>	6,303,395	10/16/01	Nulman			06/01/99
	6,345,315	02/05/02	Mishra			08/12/98
	6,366,934	04/02/02	Cheng et al.			06/02/99

FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
	WO 00/79355 A1	12/28/00	WO			X	
	2001-76982	03/23/01	Japan				X
	WO 01/33501 A1	05/10/01	WO			X	

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER

DATE CONSIDERED

1/9/04

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

INFORMATION DISCLOSURE
CITATION IN AN
APPLICATION
(PTO-1449)



ATTY. DOCKET NO.
006217
USA/Consilium/Consilium

SERIAL NO.
09/927,444

RECEIVED

OCT 02 2003

APPLICANT
Nicholas A. WARD et al.

Technology Center 2100

FILING DATE
August 13, 2001

GROUP
2812

U.S. PATENT DOCUMENTS

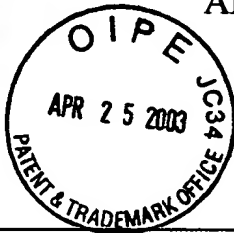
EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
_____	3,205,485	09/07/63	Notlingk			10/21/60
_____	3,229,198	01/11/66	Libby			09/28/62
_____	4,000,458	12/28/76	Miller et al.			08/21/75
_____	4,302,721	11/24/81	Urbanek et al.			05/15/79
_____	4,750,141	06/07/88	Judell et al.			11/26/85
_____	4,757,259	07/12/88	Charpentier			11/05/86
_____	4,938,600	07/03/90	Into			02/09/89
_____	5,283,141	02/01/94	Yoon et al.			03/05/92
_____	5,338,630	08/16/94	Yoon et al.			11/18/93
_____	5,485,082	01/16/96	Wisspointner et al.			04/05/90
_____	5,497,381	03/05/96	O'Donoghue et al.			06/01/95
_____	5,511,005	04/23/96	Abbe et al.			02/16/94
_____	5,519,603	03/21/96	Cawfield			10/24/94
_____	5,526,293	06/11/96	Mozumder et al.			12/17/93
_____	5,541,510	06/30/96	Danielson			04/06/95
_____	5,546,312	08/13/96	Mozumder et al.			02/24/94
_____	5,553,193	09/03/96	Meijer			09/29/94
_____	5,602,492	02/11/97	Cresswell et al.			04/28/94
_____	5,617,023	04/01/97	Skalski			02/02/95
_____	5,627,083	05/06/97	Tounai			05/12/95
_____	5,642,296	06/24/97	Saxena			07/29/93
_____	5,646,870	07/08/97	Krivokapic et al.			02/13/95
_____	5,649,169	07/15/97	Berezin et al.			06/20/95
_____	5,654,903	08/05/97	Reitman et al.			11/07/95
_____	5,663,797	09/02/97	Sandhu			05/16/96
_____	5,665,199	09/09/97	Sahota et al.			06/23/95
_____	5,666,297	09/09/97	Britt et al.			05/13/94

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

INFORMATION DISCLOSURE
CITATION IN AN
APPLICATION
(PTO-1449)



ATTY. DOCKET NO.
006217
USA/Consilium/Consilium

SERIAL NO.
09/927,444

RECEIVED

OCT 02 2003

APPLICANT
Nicholas A. WARD et al.

Technology Center 2100

FILING DATE
August 13, 2001

GROUP
2812

U.S. PATENT DOCUMENTS

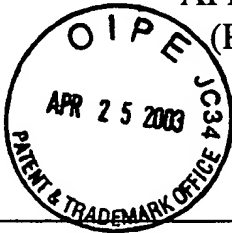
EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	5,667,424	09/16/97	Pan			09/25/96
	5,674,787	10/07/97	Zhao et al.			01/16/96
	5,719,796	02/17/98	Chen			12/04/95
	5,735,055	04/07/98	Hochbein et al.			04/23/96
	5,761,064	06/02/98	La et al.			10/06/95
	5,777,901	07/07/98	Berezin et al.			09/29/95
	5,787,021	07/28/98	Samaha			12/18/95
	5,787,269	07/28/98	Hyodo			09/19/95
	5,825,913	10/20/98	Rostami et al.			07/18/95
	5,837,258	01/12/99	Penzes et al.			05/12/94
	5,910,846	06/08/99	Sandhu			08/19/97
	5,943,237	08/24/99	Van Dorem			10/17/97
	5,960,185	09/28/99	Nguyen			06/24/96
	5,961,369	10/05/99	Bartels et al.			06/04/98
	5,978,751	11/02/99	Pence et al.			02/25/97
	6,017,771	01/25/00	Yang et al.			04/27/98
	6,036,349	03/14/00	Gombar			07/26/96
	6,064,759	05/16/00	Buckley et al.			11/06/97
	6,072,313	06/06/00	Li et al.			06/17/97
	6,097,887	08/01/00	Hardikar et al.			10/27/97
	6,108,092	08/22/00	Sandhu			06/08/99
	6,127,263	10/03/00	Parikh			07/10/98
<i>SM</i>	6,136,163	10/24/00	Cheung et al.			03/05/99
	6,141,660	10/31/00	Bach et al.			07/16/98
	6,143,646	11/07/00	Wetzel			06/03/97
	6,148,099	11/14/00	Lee et al.			07/03/97
	6,148,239	11/14/00	Funk et al.			12/12/97

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

INFORMATION DISCLOSURE
CITATION IN AN
APPLICATION
(PTO-1449)



ATTY. DOCKET NO.
006217
USA/Consilium/Consilium

SERIAL NO.
09/927,444

RECEIVED

OCT 02 2003

Technology Center 2100

APPLICANT
Nicholas A. WARD et al.

FILING DATE
August 13, 2001

GROUP
2812

U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	6,159,075	12/12/00	Zhang			10/13/99
	6,159,644	12/12/00	Sato et al.			03/06/96
<i>82</i>	6,161,054	12/12/00	Rosenthal et al.			09/17/98
	6,169,931	01/02/01	Runnels			06/29/98
	6,172,756	01/09/01	Chalmers et al.			12/11/98
	6,173,240	01/09/01	Sepulveda et al.			11/02/98
	6,191,864	02/20/01	Sandhu			02/29/00
	6,204,165	03/20/01	Ghoshal			06/24/99
	6,210,983	04/03/01	Atchison et al.			06/15/99
	6,214,734	04/10/01	Bothra et al.			11/20/98
	6,217,412	04/17/01	Campbell et al.			08/11/99
	6,222,936	04/24/01	Phan et al.			09/13/99
	2001/0001755	05/24/01	Sandhu et al.			12/29/00
	2001/0003084	06/07/01	Finarov			12/04/00
	6,246,972	06/12/01	Klimasauskas			05/27/99
	6,276,989	08/21/01	Campbell et al.			08/11/99
	6,280,289	08/28/01	Wiswesser et al.			11/02/98
	6,284,622	09/04/01	Campbell et al.			10/25/99
	6,287,879	09/11/01	Gonzales et al.			08/11/99
	6,290,572	09/18/01	Hofmann			03/23/00
	6,304,999	10/16/01	Toprac et al.			10/23/00
	2001/0030366	10/18/01	Nakano et al.			03/07/01
	6,307,628	10/23/01	Lu et al.			08/18/00
	6,314,379	11/06/01	Hu et al.			12/04/97
	2001/0039462	11/08/01	Mendez et al.			04/02/01
	6,320,655	11/20/01	Matsushita et al.			03/15/00

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

INFORMATION DISCLOSURE
CITATION IN AN
APPLICATION
(PTO-1449)



ATTY. DOCKET NO.
006217
USA/Consilium/Consilium

SERIAL NO.
09/927,444

RECEIVED

OCT 02 2003

APPLICANT
Nicholas A. WARD et al.

Technology Center 2100

FILING DATE
August 13, 2001

GROUP
2812

U.S. PATENT DOCUMENTS

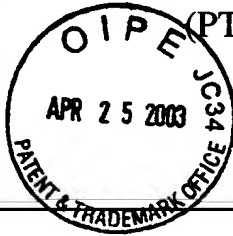
EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
<input checked="" type="checkbox"/>	2001/0042690	11/22/01	Talieh			12/14/00
<input checked="" type="checkbox"/>	6,324,481	11/27/01	Atchison et al.			06/15/99
<input checked="" type="checkbox"/>	6,334,807	01/01/02	Lebel et al.			04/30/99
<input checked="" type="checkbox"/>	6,336,841	01/08/02	Chang			03/29/01
<input checked="" type="checkbox"/>	2002/0032499	03/14/02	Wilson et al.			05/04/01
<input checked="" type="checkbox"/>	6,360,133	03/19/02	Campbell et al.			06/17/99
<input checked="" type="checkbox"/>	6,360,184	03/19/02	Jacquez			03/26/97
<input checked="" type="checkbox"/>	6,368,883	04/09/02	Bode et al.			08/10/99
<input checked="" type="checkbox"/>	6,368,884	04/09/02	Goodwin et al.			04/13/00
<input checked="" type="checkbox"/>	6,379,980	04/30/02	Toprac			07/26/00
<input checked="" type="checkbox"/>	6,388,253	05/14/02	Su			11/02/00
<input checked="" type="checkbox"/>	2002/0058460	05/16/02	Lee et al.			09/14/01
<input checked="" type="checkbox"/>	6,395,152	05/28/02	Wang			07/02/99
<input checked="" type="checkbox"/>	6,397,114	05/28/02	Eryurek et al.			05/03/99
<input checked="" type="checkbox"/>	6,405,096	06/11/02	Toprac et al.			08/10/99
<input checked="" type="checkbox"/>	6,405,144	06/11/02	Toprac et al.			01/18/00
<input checked="" type="checkbox"/>	2002/0070126	06/13/02	Sato et al.			09/19/01
<input checked="" type="checkbox"/>	2002/0081951	06/27/02	Boyd et al.			02/20/02
<input checked="" type="checkbox"/>	2002/0089676	07/11/02	Pecen et al.			04/26/00
<input checked="" type="checkbox"/>	2002/0102853	08/01/02	Li et al.			12/20/01
<input checked="" type="checkbox"/>	2002/0107599	08/08/02	Patel et al.			01/25/01
<input checked="" type="checkbox"/>	6,435,952	08/20/02	Boyd et al.			06/30/00
<input checked="" type="checkbox"/>	6,438,438	08/20/02	Takagi et al.			01/02/98
<input checked="" type="checkbox"/>	2002/0113039	08/22/02	Mek et al.			02/16/01
<input checked="" type="checkbox"/>	6,440,295	08/27/02	Wang			02/04/00
<input checked="" type="checkbox"/>	2002/0127950	09/12/02	Hirose et al.			03/08/01
<input checked="" type="checkbox"/>	6,455,937	09/24/02	Cunningham			03/17/99

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

INFORMATION DISCLOSURE
CITATION IN AN
APPLICATION
(PTO-1449)



ATTY. DOCKET NO.
006217
USA/Consilium/Consilium

SERIAL NO.
09/927,444

RECEIVED

OCT 02 2003

APPLICANT
Nicholas A. WARD et al.

Technology Center 2100

FILING DATE
August 13, 2001

GROUP
2812

U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
_____	2002/0149359	10/17/02	Crouzen et al.	_____	_____	08/18/01
_____	6,479,902	11/12/02	Lopatin et al.	_____	_____	06/29/00
_____	6,479,990	11/12/02	Mednikov et al.	_____	_____	06/18/01
_____	2002/0185658	12/12/02	Inoue et al.	_____	_____	06/13/01
_____	2002/0193902	12/19/02	Shanmugasundram et al.	_____	_____	06/18/02
_____	2002/0197745	12/26/02	Shanmugasundram et al.	_____	_____	08/31/01
_____	2002/0197934	12/26/02	Paik	_____	_____	11/30/01
_____	2002/0199082	12/26/02	Shanmugasundram et al.	_____	_____	06/18/02
_____	6,503,839	01/07/03	Gonzales et al.	_____	_____	07/03/01
_____	2003/0020909	01/30/03	Adams et al.	_____	_____	04/09/01
_____	2003/0020928	01/30/03	Ritzdorf et al.	_____	_____	07/09/01
_____	6,517,413	02/11/03	Hu et al.	_____	_____	10/25/00

FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
_____	61-66104	04/04/86	Japan	_____	_____	X	_____
_____	3-202710	09/04/91	Japan	_____	_____	X	_____
_____	8-23166	01/23/96	Japan	_____	_____	X	_____
_____	9-246547	09/19/97	Japan	_____	_____	X	_____
_____	WO 98/05066	02/05/98	WIPO	_____	_____	X	_____
_____	10-34522	02/10/98	Japan	_____	_____	X	_____
_____	0 869 652	10/07/98	Europe	_____	_____	X	_____
_____	WO 99/09371	02/25/99	WIPO	_____	_____	X	_____
_____	0 910 123	04/21/99	Europe	_____	_____	X	_____
_____	0 932 194	07/28/99	Europe	_____	_____	X	_____
_____	WO 00/00874	01/06/00	WIPO	_____	_____	X	_____
_____	2000-183001	06/30/00	Japan	_____	_____	X	_____

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

INFORMATION DISCLOSURE
CITATION IN AN
APPLICATION
(PTO-1449)



ATTY. DOCKET NO.
006217
USA/Consilium/Consilium

SERIAL NO.
09/927,444

RECEIVED

OCT 02 2003

APPLICANT
Nicholas A. WARD et al.

Technology Center 2100

FILING DATE
August 13, 2001

GROUP
2812

FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
—	1 071 128	01/24/01	Europe			X	
—	WO 01/18623	03/15/01	WIPO			X	
—	WO 01/25865	04/12/01	WIPO			X	
—	434103	05/16/01	Taiwan			X	
—	436383	05/28/01	Taiwan			X	
—	455938	09/21/01	Taiwan			X	
—	455976	09/21/01	Taiwan			X	
—	2001-284299	10/12/01	Japan			X	
—	2001-305108	10/31/01	Japan			X	
—	2002-9030	01/11/02	Japan			X	
—	WO 02/074491	09/26/02	WIPO			X	
—	2002-343754	11/29/02	Japan			X	

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

—	Ostanin, Yu.Ya. October 1981. "Optimization of Thickness Inspection of Electrically Conductive Single-Layer Coatings with Laid-on Eddy-Current Transducers (Abstract)." <i>Defektoskopiya</i> , vol. 17, no. 10, pp. 45-52. Moscow, USSR.
—	February 1984. "Substrate Screening Process." <i>IBM Technical Disclosure Bulletin</i> , pp. 4824-4825.
—	Herrmann, D. 1988. "Temperature Errors and Ways of Elimination for Contactless Measurement of Shaft Vibrations (Abstract)." <i>Technisches Messen</i> TM , vol. 55, no. 1, pp. 27-30. West Germany.
—	Lin, Kuang-Kuo and Costas J. Spanos. November 1990. "Statistical Equipment Modeling for VLSI Manufacturing: An Application for LPCVD." <i>IEEE Transactions on Semiconductor Manufacturing</i> , v. 3, n. 4, pp. 216-229.
—	Chang, Norman H. and Costas J. Spanos. February 1991. "Continuous Equipment Diagnosis Using Evidence Integration: An LPCVD Application." <i>IEEE Transactions on Semiconductor Manufacturing</i> , v. 4, n. 1, pp. 43-51.
—	Larrabee, G. B. May 1991. "The Intelligent Microelectronics Factory of the Future (Abstract)." <i>IEEE/SEMI International Semiconductor Manufacturing Science Symposium</i> , pp. 30-34. Burlingame, CA.
—	Burke, Peter A. June 1991. "Semi-Empirical Modelling of SiO ₂ Chemical-Mechanical Polishing Planarization." <i>VMIC Conference, 1991 IEEE</i> , pp. 379-384. IEEE.

EXAMINER

DATE CONSIDERED

1/9/04

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

INFORMATION DISCLOSURE
CITATION IN AN
APPLICATION
(PTO-1449)



ATTY. DOCKET NO.
006217
USA/Consilium/Consilium

SERIAL NO.
09/927,444

RECEIVED

OCT 02 2003

APPLICANT
Nicholas A. WARD et al.

Technology Center 2100

FILING DATE
August 13, 2001

GROUP
2812

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

- May 1992. "Laser Ablation Endpoint Detector." *IBM Technical Disclosure Bulletin*, pp. 333-334.
- Spanos, Costas J., Hai-Fang Guo, Alan Miller, and Joanne Levine-Parrill. November 1992. "Real-Time Statistical Process Control Using Tool Data." *IEEE Transactions on Semiconductor Manufacturing*, v. 5, n. 4, pp. 308-318.
- February 1993. "Electroless Plating Scheme to Hermetically Seal Copper Features." *IBM Technical Disclosure Bulletin*, pp. 405-406.
- Scarr, I. M. and J. K. Zelisse. April 1993. "New Topology for Thickness Monitoring Eddy Current Sensors (Abstract)." *Proceedings of the 36th Annual Technical Conference*, Dallas, Texas.
- Matsuyama, Akira and Jessi Nieu. 1993. "A State-of-the-Art Automation System of an ASIC Wafer Fab in Japan." *IEEE/SEMI International Semiconductor Manufacturing Science Symposium*, pp. 42-47.
- Yeh, C. Eugene, John C. Cheng, and Kwan Wong. 1993. "Implementation Challenges of a Feedback Control System for Wafer Fabrication." *IEEE/CHMT International Electronics Manufacturing Technology Symposium*, pp. 438-442.
- Kurtzberg, Jerome M. and Menachem Levanoni. January 1994. "ABC: A Better Control for Manufacturing." *IBM Journal of Research and Development*, v. 38, n. 1, pp. 11-30.
- Mozumder, Purnendu K. and Gabriel G. Barna. February 1994. "Statistical Feedback Control of a Plasma Etch Process." *IEEE Transactions on Semiconductor Manufacturing*, v. 7, n. 1, pp. 1-11.
- Muller-Heinzerling, Thomas, Ulrich Neu, Hans Georg Nurnberg, and Wolfgang May. March 1994. "Recipe-Controlled Operation of Batch Processes with Batch X." *ATP Automatisierungstechnische Praxis*, vol. 36, no. 3, pp. 43-51.
- Stoddard, K., P. Crouch, M. Kozicki, and K. Tsakalis. June-July 1994. "Application of Feedforward and Adaptive Feedback Control to Semiconductor Device Manufacturing (Abstract)." *Proceedings of 1994 American Control Conference - ACC '94*, vol. 1, pp. 892-896. Baltimore, Maryland.
- Schaper, C. D., M. M. Moslehi, K. C. Saraswat, and T. Kailath. November 1994. "Modeling, Identification, and Control of Rapid Thermal Processing Systems (Abstract)." *Journal of the Electrochemical Society*, vol. 141, no. 11, pp. 3200-3209.
- Tao, K. M., R. L. Kosut, M. Ekblad, and G. Aral. December 1994. "Feedforward Learning Applied to RTP of Semiconductor Wafers (Abstract)." *Proceedings of the 33rd IEEE Conference on Decision and Control*, vol. 1, pp. 67-72. Lake Buena Vista, Florida.
- Hu, Albert, He Du, Steve Wong, Peter Renteln, and Emmanuel Sachs. 1994. "Application of Run by Run Controller to the Chemical-Mechanical Planarization Process." *IEEE/CPMT International Electronics Manufacturing Technology Symposium*, pp. 371-378.
- Spanos, C. J., S. Leang, S.-Y. Ma, J. Thomson, B. Bombay, and X. Niu. May 1995. "A Multistep Supervisory Controller for Photolithographic Operations (Abstract)." *Proceedings of the Symposium on Process Control, Diagnostics, and Modeling in Semiconductor Manufacturing*, pp. 3-17.
- Leang, Sovarong, Shang-Yi Ma, John Thomson, Bart John Bombay, and Costas J. Spanos. May 1996. "A Control System for Photolithographic Sequences." *IEEE Transactions on Semiconductor Manufacturing*, vol. 9, no. 2.

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

INFORMATION DISCLOSURE
CITATION IN AN
APPLICATION
(PTO-1449)



ATTY. DOCKET NO.
006217
USA/Consilium/Consilium

SERIAL NO.
09/927,444

RECEIVED

OCT 02 2003

APPLICANT
Nicholas A. WARD et al.

Technology Center 2100

FILING DATE
August 13, 2001

GROUP
2812

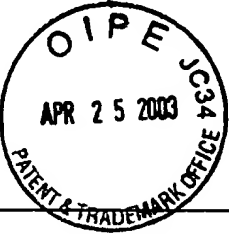

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

- | | |
|--|---|
| | Boning, Duane S., William P. Moyne, Taber H. Smith, James Moyne, Ronald Telfeyan, Arnon Hurwitz, Scott Shellman, and John Taylor. October 1996. "Run by Run Control of Chemical-Mechanical Polishing." <i>IEEE Transactions on Components, Packaging, and Manufacturing Technology—Part C</i> , vol. 19, no. 4, pp. 307-314. |
| | Zhe, Ning, J. R. Moyne, T. Smith, D. Boning, E. Del Castillo, Yeh Jinn-Yi, and Hurwitz. November 1996. "A Comparative Analysis of Run-to-Run Control Algorithms in Semiconductor Manufacturing Industry (Abstract)." <i>IEEE/SEMI 1996 Advanced Semiconductor Manufacturing Conference Workshop</i> , pp. 375-381. |
| | Yasuda, M., T. Osaka, and M. Ikeda. December 1996. "Feedforward Control of a Vibration Isolation System for Disturbance Suppression (Abstract)." <i>Proceeding of the 35th IEEE Conference on Decision and Control</i> , vol. 2, pp. 1229-1233. Kobe, Japan. |
| | Fan, Jr-Min, Ruey-Shan Guo, Shi-Chung Chang, and Kian-Huei Lee. 1996. "Abnormal Tred Detection of Sequence-Disordered Data Using EWMA Method." <i>IEEE/SEMI Advanced Semiconductor Manufacturing Conference</i> , pp. 169-174. |
| | Smith, Taber and Duane Boning. 1996. "A Self-Tuning EWMA Controller Utilizing Artificial Neural Network Function Approximation Techniques." <i>IEEE/CPMT International Electronics Manufacturing Technology Symposium</i> , pp. 355-363. |
| | Guo, Ruey-Shan, Li-Shia Huang, Argon Chen, and Jin-Jung Chen. October 1997. "A Cost-Effective Methodology for a Run-by-Run EWMA Controller." <i>6th International Symposium on Semiconductor Manufacturing</i> , pp. 61-64. |
| | Mullins, J. A., W. J. Campbell, and A. D. Stock. October 1997. "An Evaluation of Model Predictive Control in Run-to-Run Processing in Semiconductor Manufacturing (Abstract)." <i>Proceedings of the SPIE - The International Society for Optical Engineering Conference</i> , vol. 3213, pp. 182-189. |
| | Reitman, E. A., D. J. Friedman, and E. R. Lory. November 1997. "Pre-Production Results Demonstrating Multiple-System Models for Yield Analysis (Abstract)." <i>IEEE Transactions on Semiconductor Manufacturing</i> , vol. 10, no. 4, pp. 469-481. |
| | Durham, Jim and Myriam Roussel. 1997. "A Statistical Method for Correlating In-Line Defectivity to Probe Yield." <i>IEEE/SEMI Advanced Semiconductor Manufacturing Conference</i> , pp. 76-77. |
| | Shindo, Wataru, Eric H. Wang, Ram Akella, and Andrzej J. Strojwas. 1997. "Excursion Detection and Source Isolation in Defect Inspection and Classification." <i>2nd International Workshop on Statistical Metrology</i> , pp. 90-93. |
| | July 1998. "Active Controller: Utilizing Active Databases for Implementing Multistep Control of Semiconductor Manufacturing (Abstract)." <i>IEEE Transactions on Components, Packaging and Manufacturing Technology—Part C</i> , vol. 21, no. 3, pp. 217-224. |
| | Fang, S. J., A. Barda, T. Janecko, W. Little, D. Outley, G. Hempel, S. Joshi, B. Morrison, G. B. Shinn, and M. Birang. 1998. "Control of Dielectric Chemical Mechanical Polishing (CMP) Using and Interferometry Based Endpoint Sensor." <i>International Proceedings of the IEEE Interconnect Technology Conference</i> , pp. 76-78. |

EXAMINER

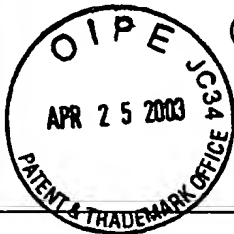
DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

<p style="text-align: center;">INFORMATION DISCLOSURE CITATION IN AN APPLICATION (PTO-1449)</p> <div style="text-align: center;">  </div>	<p>ATTY. DOCKET NO. 006217 USA/Consilium/Consilium</p>	<p>SERIAL NO. 09/927,444</p> <p style="text-align: center; font-size: 2em;">RECEIVED</p> <p style="text-align: center;">OCT 02 2003</p>
	<p>APPLICANT Nicholas A. WARD et al.</p>	<p>Technology Center 2100</p>
	<p>FILING DATE August 13, 2001</p>	<p>GROUP 2812</p>
<p>OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)</p>		
<p>Ouma, Dennis, Duane Boning, James Chung, Greg Shinn, Leif Olsen, and John Clark. 1998. "An Integrated Characterization and Modeling Methodology for CMP Dielectric Planarization." <i>Proceedings of the IEEE 1998 International Interconnect Technology Conference</i>, pp. 67-69.</p>		
<p>Boning, Duane S., Jerry Stefani, and Stephanie W. Butler. February 1999. "Statistical Methods for Semiconductor Manufacturing." <i>Encyclopedia of Electrical Engineering</i>, J. G. Webster, Ed.</p>		
<p>McIntosh, John. March 1999. "Using CD-SEM Metrology in the Manufacture of Semiconductors (Abstract)." <i>JOM</i>, vol. 51, no. 3, pp. 38-39.</p>		
<p>Pan, J. Tony, Ping Li, Kapila Wijekoon, Stan Tsai, and Fritz Redeker. May 1999. "Copper CMP Integration and Time Dependent Pattern Effect." <i>IEEE 1999 International Interconnect Technology Conference</i>, pp. 164-166.</p>		
<p>Meckl, P. H. and K. Umemoto. August 1999. "Achieving Fast Motions in Semiconductor Manufacturing Machinery (Abstract)." <i>Proceedings of the 1999 IEEE International Conference on Control Applications</i>, vol. 1, pp. 725-729. Kohala Coast, HI.</p>		
<p>Khan, K., C. El Chemali, J. Moyne, J. Chapple-Sokol, R. Nadeau, P. Smith, C., and T. Parikh. October 1999. "Yield Improvement at the Contact Process Through Run-to-Run Control (Abstract)." <i>24th IEEE/CPMT Electronics Manufacturing Technology Symposium</i>, pp. 258-263.</p>		
<p>Ruegsegger, Steven, Aaron Wagner, James S. Freudenberg, and Dennis S. Grimard. November 1999. "Feedforward Control for Reduced Run-to-Run Variation in Microelectronics Manufacturing." <i>IEEE Transactions on Semiconductor Manufacturing</i>, vol. 12, no. 4.</p>		
<p>November 1999. "How to Use EWMA to Achieve SPC and EPC Control." <i>International Symposium on NDT Contribution to the Infrastructure Safety Systems</i>, Torres, Brazil. <http://www.ndt.net/abstract/ndtiss99/data/35.htm></p>		
<p>Edgar, T. F., W. J. Campbell, and C. Bode. December 1999. "Model-Based Control in Microelectronics Manufacturing." <i>Proceedings of the 38th IEEE Conference on Decision and Control</i>, Phoenix, Arizona, vol. 4, pp. 4185-4191.</p>		
<p>Meckl, P. H. and K. Umemoto. April 2000. "Achieving Fast Motions by Using Shaped Reference Inputs [Semiconductor Manufacturing Machine] (Abstract)." <i>NEC Research and Development</i>, vol. 41, no. 2, pp. 232-237.</p>		
<p>Oechsner, R., T. Tschaftary, S. Sommer, L. Pfitzner, H. Ryssel, H. Gerath, C. Baier, and M. Hafner. September 2000. "Feed-forward Control for a Lithography/Etch Sequence (Abstract)." <i>Proceedings of the SPIE - The International Society for Optical Engineering Conference</i>, vol. 4182, pp. 31-39.</p>		
<p>Cheung, Robin. October 18, 2000. "Copper Interconnect Technology." <i>AVS/CMP User Group Meeting</i>, Santa Clara, CA.</p>		
<p>Edgar, Thomas F., Stephanie W. Butler, W. Jarrett Campbell, Carlos Pfeiffer, Christopher Bode, Sung Bo Hwang, K. S. Balakrishnan, and J. Hahn. November 2000. "Automatic Control in Microelectronics Manufacturing: Practices, Challenges, and Possibilities (Abstract)." <i>Automatica</i>, v. 36, n. 11.</p>		
<p>EXAMINER </p>	<p>DATE CONSIDERED 1/9/04</p>	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

INFORMATION DISCLOSURE
CITATION IN AN
APPLICATION
(PTO-1449)



ATTY. DOCKET NO.
006217
USA/Consilium/Consilium

SERIAL NO.
09/927,444

RECEIVED
OCT 02 2003

APPLICANT
Nicholas A. WARD et al.

Technology Center 2100

FILING DATE
August 13, 2001

GROUP
2812

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

- ~~Khan, S., M. Musavi, and H. Ressim. November 2000. "Critical Dimension Control in Semiconductor Manufacturing (Abstract)." ANNIE 2000. Smart Engineering Systems Design Conference, pp. 995-1000. St. Louis, Missouri.~~
- ~~ACM Research Inc. 2000. "Advanced Copper Metallization for 0.13 to 0.05 μ m & Beyond." <http://acmrc.com/press/ACM-ECP-brochure.pdf>~~
- ~~Ravid, Avi, Avner Sharon, Amit Weingarten, Vladimir Machavariani, and David Scheiner. 2000. "Copper CMP Planarity Control Using IFM." IEEE/SEMI Advanced Semiconductor Manufacturing Conference, pp. 437-443.~~
- ~~Chen, Argon and Ruey-Shan Guo. February 2001. "Age-Based Double EWMA Controller and Its Application to CMP Processes." IEEE Transactions on Semiconductor Manufacturing, vol. 14, no. 1, pp. 11-19.~~
- ~~Tobin, K. W., T. P. Karnowski, L. F. Arrowood, and F. Lakhani. April 2001. "Field Test Results of an Automated Image Retrieval System (Abstract)." Advanced Semiconductor Manufacturing Conference, 2001 IEEE/SEMI, Munich, Germany.~~
- ~~Tan, K. K., H. F. Dou, and K. Z. Tang. May-June 2001. "Precision Motion Control System for Ultra-Precision Semiconductor and Electronic Components Manufacturing (Abstract)." 51st Electronic Components and Technology Conference 2001. Proceedings, pp. 1372-1379. Orlando, Florida.~~
- ~~Heuberger, U. September 2001. "Coating Thickness Measurement with Dual-Function Eddy-Current & Magnetic Inductance Instrument (Abstract)." Galvanotechnik, vol. 92, no. 9, pp. 2354-2366+IV.~~
- ~~Wang, LiRen and Hefin Rowlands. 2001. "A Novel NN Fuzzy SPC Feedback Control System." 8th IEEE International Conference on Emerging Technologies and Factory Automation, pp. 417-423.~~
- ~~Moyne, J., V. Solakhian, A. Yershov, M. Anderson, and D. Mockler-Hebert. April-May 2002. "Development and Deployment of a Multi-Component Advanced Process Control System for an Epitaxy Tool (Abstract)." 2002 IEEE Advanced Semiconductor Manufacturing Conference and Workshop, pp. 125-130.~~
- ~~Sarfaty, M., A. Shanmugasundram, A. Schwarm, J. Paik, Jimin Zhang, Rong Pan, M. J. Seamons, H. Li, R. Hung, and S. Parikh. April-May 2002. "Advance Process Control Solutions for Semiconductor Manufacturing (Abstract)." 13th Annual IEEE/SEMI Advanced Semiconductor Manufacturing Conference. Advancing the Science and Technology of Semiconductor Manufacturing. ASMC 2002, pp. 101-106. Boston, MA.~~
- ~~Campbell, W. J., S. K. Firth, A. J. Toprac, and T. F. Edgar. May 2002. "A Comparison of Run-to-Run Control Algorithms (Abstract)." Proceedings of 2002 American Control Conference, vol. 3, pp. 2150-2155.~~
- ~~Good, Richard and S. Joe Qin. May 2002. "Stability Analysis of Double EWMA Run-to-Run Control with Metrology Delay." IEEE/CPMT International Electronics Manufacturing Technology Symposium, pp. 355-363.~~

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

INFORMATION DISCLOSURE
CITATION IN AN
APPLICATION
(PTO-1449)



ATTY. DOCKET NO.
006217
USA/Consilium/Consilium

SERIAL NO.
09/927,444

RECEIVED

OCT 02 2003

APPLICANT
Nicholas A. WARD et al.

Technology Center 2100

FILING DATE
August 13, 2001

GROUP
2812

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

- Smith, Stewart, Anthony J. Walton, Alan W. S. Ross, Georg K. H. Bodammer, and J. T. M. Stevenson. May 2002. "Evaluation of Sheet Resistance and Electrical Linewidth Measurement Techniques for Copper Damascene Interconnect." *IEEE Transactions on Semiconductor Manufacturing*, vol. 15, no. 2, pp. 214-222.
- Itabashi, Takeyuki, Hiroshi Nakano, and Haruo Akahoshi. June 2002. "Electroless Deposited CoWB for Copper Diffusion Barrier Metal." *IEEE International Interconnect Technology Conference*, pp. 285-287.
- ACM Research, Inc. 2002. "ACM Ultra ECP® System: Electro-Copper Plating (ECP) Deposition." www.acmrc.com/ecp.html
- Applied Materials, Inc. 2002. "Applied Materials: Information for Everyone: Copper Electrochemical Plating." www.appliedmaterials.com/products/copper_electrochemical_plating.html.
- KLA-Tencor Corporation. 2002. "KLA Tencor: Press Release: KLA-Tencor Introduces First Production-Worthy Copper CMP In-Situ Film Thickness and End-point Control System: Multi-Million Dollar Order Shipped to Major CMP Tool Manufacturer." www.kla-tencor.com/news_events/press_releases/press_releases2001/984086002.html.
- Takahashi, Shingo, Kaori Tai, Hiizu Ohtorii, Naoki Komai, Yuji Segawa, Hiroshi Horikoshi, Zenya Yasuda, Hiroshi Yamada, Masao Ishihara, and Takeshi Nogami. 2002. "Fragile Porous Low-k/Copper Integration by Using Electro-Chemical Polishing." *2002 Symposium on VLSI Technology Digest of Technical Papers*, pp. 32-33.
- Cunningham, James A. 2003. "Using Electrochemistry to Improve Copper Interconnects." <<http://www.e-insite.net/semiconductor/index.asp?layout=article&articleid=CA47465>>
- March 25, 2003. International Search Report for PCT/US02/24859 prepared by the European Patent Office.
- Adams, Bret W., Bogdan Swedek, Rajeev Bajaj, Fritz Redeker, Manush Birang, and Gregory Amico. "Full-Wafer Endpoint Detection Improves Process Control in Copper CMP." *Semiconductor Fabtech* - 12th Edition. Applied Materials, Inc., Santa Clara, CA.
- Berman, Mike, Thomas Bibby, and Alan Smith. "Review of In Situ & In-line Detection for CMP Applications." *Semiconductor Fabtech*, 8th Edition, pp. 267-274.
- "Semiconductor Manufacturing: An Overview." <<http://users.ece.gatech.edu/~gmay/overview.html>>

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

INFORMATION DISCLOSURE
CITATION IN AN
APPLICATION
(PTO-1449)



ATTY. DOCKET NO.
006217
USA/Consilium/Consilium

SERIAL NO.
09/927,444

APPLICANT
Nicholas A. WARD et al.

FILING DATE
August 13, 2001

GROUP
2812

U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	5,901,313	05/04/99	Wolf et al.			09/02/97
	6,002,989	12/14/99	Shiba et al.			04/01/97
	6,094,688	07/25/00	Mellen-Garnett et al.			03/12/98
	6,340,602	01/22/02	Johnson et al.			02/12/01
	6,345,288	02/05/02	Reed et al.			05/15/00
	6,368,879	04/09/02	Toprac			09/22/99
	US-2002/0107604	08/08/02	Riley et al.			12/06/00
	6,470,230	10/22/02	Toprac et al.			01/04/00
	6,482,660	11/19/02	Conchieri et al.			03/19/01
	6,567,717	05/20/03	Krivokapic et al.			01/19/00

RECEIVED

OCT 20 2003

Technology Center 2100

FOREIGN PATENT DOCUMENTS

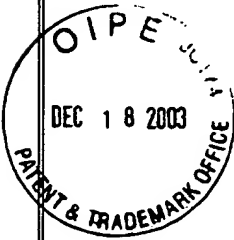
EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
	WO 99/59200	11/18/99	WIPO			X	
	WO 01/52319	07/19/01	WIPO			X	

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	Williams, Randy, Dadi Gudmundsson, Kevin Monahan, Raman Nurani, Meryl Stoller and J. George Shanthikumar. October 1999. "Optimized Sample Planning for Wafer Defect Inspection," <i>Semiconductor Manufacturing Conference Proceedings, 1999 IEEE International Symposium on Santa Clara, CA</i> . Piscataway, NJ. pp. 43 - 46.
	23 July 2003. Invitation to Pay Additional Fees and Communication Relating to the Results of the Partial International Search for PCT/US02/19116.
	01 August 2003. Written Opinion for PCT/US01/27406.
	20 August 2003. Written Opinion for PCT/US01/22833.
EXAMINER	DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

**INFORMATION DISCLOSURE
CITATION IN AN
APPLICATION
(PTO-1449)**



ATTY. DOCKET NO.
006217
USA/Consilium/Consilium

SERIAL NO.
09/927,444

RECEIVED

DEC 22 2003

Technology Center 2100

APPLICANT
Nicholas A. WARD et al.

FILING DATE
August 13, 2001

GROUP
2812

U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
_____	4,207,520	06/10/80	Flora et al.			04/06/78
_____	4,209,744	06/24/80	Gerasimov et al.			03/27/78
_____	4,609,870	09/02/86	Lale et al.			09/13/84
_____	4,755,753	07/05/88	Chern			07/23/86
_____	5,427,878	06/27/95	Corliss			05/16/94
_____	5,534,289	07/09/96	Bilder et al.			01/03/95
_____	5,867,389	02/02/99	Hamada et al.			11/26/96
_____	6,041,263	03/21/00	Boston et al.			10/01/97
_____	6,077,412	06/20/00	Ting et al.			10/30/98
_____	6,271,670	08/07/01	Caffey			02/08/99
_____	6,400,162	06/04/02	Mallory et al.			07/21/00
_____	US 2002/0077031	06/20/02	Johansson et al.			07/06/01
_____	6,442,496	08/27/02	Pasadyne et al.			08/08/00
_____	6,563,308	05/13/03	Nagano et al.			03/27/01
_____	6,587,744	07/01/03	Stoddard et al.			06/20/00

FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
_____	WO 01/11679	02/15/01	WIPO			X	
_____	WO 01/080306	10/25/01	WIPO			X	

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

_____	Miller, G. L., D. A. H. Robinson, and J. D. Wiley. July 1976. "Contactless measurement of semiconductor conductivity by radio frequency-free-carrier power absorption." <i>Rev. Sci. Instrum.</i>, Volume 47, No. 7. pp. 799 - 805.
_____	1999. "Contactless Bulk Resistivity/Sheet Resistance Measurement and Mapping Systems." www.Lehighton.com/fabtech1/index.html.
_____	2000. "Microsense II Capacitance Gaging System." www.udetech.com.

EXAMINER

DATE CONSIDERED

1/9/04

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

11

SHEET 2 OF 2

INFORMATION DISCLOSURE CITATION IN AN APPLICATION



(PTO-1449)

ATTY. DOCKET NO.
006217
USA/Consilium/Consilium

SERIAL NO.
09/927,444

APPLICANT
Nicholas A. WARD et al.

FILING DATE
August 13, 2001

GROUP
2812

U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PUBLICATION / PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	5,889,991	03/30/99	Consolatti et al.			12/06/96
	6,183,345 B1	02/06/01	Kamono et al.			03/20/98
	6,253,366 B1	06/26/01	Mutschler, III			03/31/99
	6,298,470 B1	10/02/01	Breiner et al.			04/15/99

FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	PUBLICATION / PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
	WO 01/52053 A3	07/19/01	WO			X	
	WO 01/57823 A2	08/09/01	WO			X	
	EP 1 182 526 A2	02/27/02	Europe			X	
	WO 02/17150 A1	02/28/02	WO			X	
	WO 02/33737 A2	04/25/02	WO			X	

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

Chemali, Chadi El, James Moyne, Kareemullah Khan, Rock Nadeau, Paul Smith, John Colt, Jonathan Chapple-Sokol, and Tarun Parikh. July/August 2000. "Multizone Uniformity Control of a Chemical Mechanical Polishing Process Utilizing a Pre- and Postmeasurement Strategy." J. Vac. Sci. Technol. A, Vol. 18(4). pp. 1287-1296. American Vacuum Society.
Jensen, Alan, Peter Renteln, Stephen Jew, Chris Raeder, and Patrick Cheung. June 2001. "Empirical-Based Modeling for Control of CMP Removal Uniformity." Solid State Technology, Vol. 44, No. 6, pp. 101-102, 104, 106. Cowan Publ. Corp.: Washington, D.C.
Sarfaty, Moshe, Arulkumar Shanmugasundram, Alexander Schwarm, Joseph Paik, Jimin Zhang, Rong Pan, Martin J. Seamons, Howard Li, Raymond Hung, and Suketu Parikh. April/May 2002. "Advance Process Control Solutions for Semiconductor Manufacturing." IEEE/SEMI Advanced Semiconductor Manufacturing Conference. pp. 101-106.
October 4, 2002. International Search Report from PCT/US01/22833.
October 23, 2002. International Search Report from PCT/US01/27406.
November 7, 2002. International Search Report from PCT/US02/19061.
November 11, 2002. International Search Report from PCT/US02/19117.
November 12, 2002. International Search Report from PCT/US02/19063.

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

#12

SHEET 1 OF 2

INFORMATION DISCLOSURE CITATION IN AN APPLICATION

(PTO-1449)



ATTY. DOCKET NO.
006217
USA/Consilium/Consilium

SERIAL NO.
09/927,444

APPLICANT
Nicholas A. WARD et al.

FILING DATE
August 13, 2001

GROUP
2812

U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PUBLICATION / PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
<i>EGS</i>	5,270,222	12/14/93	Moslehi			12/31/90
	5,375,064	12/20/94	Bollinger			12/02/93
	5,599,423	02/04/97	Parker et al.			06/30/95
	5,844,554	12/01/98	Geller et al.			09/17/96

FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	PUBLICATION / PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
	WO 95/34866	12/21/95	WO			X	
	WO 98/45090	10/15/98	WO			X	
	EP 0 881 040 A2	12/02/98	Europe			X	
	WO 99/25520	05/27/99	WO			X	
	WO 00/54325	09/14/00	WO			X	
	EP 1 066 925 A2	01/10/01	Europe			X	
	EP 1 092 505 A2	04/18/01	Europe			X	

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	Hu, Albert, Kevin Nguyen, Steve Wong, Xihua Zhang, Emanuel Sachs, and Peter Renteln. 1993. "Concurrent Deployment of Run by Run Controller Using SCC Framework." IEEE/SEMI International Semiconductor Manufacturing Science Symposium. pp. 126-132.
	Hu, Albert, He Du, Steve Wong, Peter Renteln, and Emanuel Sachs. 1994. "Application of Run by Run Controller to the Chemical-Mechanical Planarization Process." IEEE/CPMT International Electronics Manufacturing Technology Symposium. pp. 371-378.
	Smith, Taber, Duane Boning, James Moyne, Arnon Hurwitz, and John Curry. June 1996. "Compensating for CMP Pad Wear Using Run by Run Feedback Control." Proceedings of the Thirteenth International VLSI Multilevel Interconnection Conference. pp. 437-439.
	Suzuki, Junichi and Yoshikazu Yamamoto. 1998. "Toward the Interoperable Software Design Models: Quarter of UML, XML, DOM and CORBA." Proceedings IEEE International Software Engineering Standards Symposium. pp. 1-10.
	Klein, Bruce. June 1999. "Application Development: XML Makes Object Models More Useful." Informationweek. pp. 1A-6A.

EXAMINER

mr

DATE CONSIDERED

1/9/04

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



INFORMATION DISCLOSURE
CITATION IN AN
APPLICATION
(PTO-1449)

ATTY. DOCKET NO.
006217
USA/Consilium/Consilium

SERIAL NO.
09/927,444

APPLICANT
Nicholas A. WARD et al.

FILING DATE
August 13, 2001

GROUP
2812


U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
_____	3,767,900	10/23/73	Chao et al.	_____	_____	06/23/71
_____	3,920,965	11/18/75	Sohrwardy	_____	_____	03/04/74
_____	4,368,510	01/11/83	Anderson	_____	_____	10/20/80
_____	4,616,308	10/07/86	Morshedi et al.	_____	_____	12/02/85
_____	4,663,703	05/05/87	Axelby et al.	_____	_____	10/02/85
_____	5,347,446	09/13/94	Iino et al.	_____	_____	02/10/92
_____	5,519,605	05/21/96	Cawfield	_____	_____	10/24/94
_____	6,128,016	10/03/00	Coelho et al.	_____	_____	12/20/96
_____	6,219,711	04/17/01	Chari	_____	_____	10/01/97
_____	6,249,712	06/19/01	Boiquaye	_____	_____	09/25/96
_____	6,278,899	08/21/01	Piche et al.	_____	_____	10/06/98
_____	2001/0039462	11/08/01	Mendez et al.	_____	_____	04/02/01
_____	2001/0040997	11/15/01	Tsap et al.	_____	_____	05/15/01
_____	2002/0128805	09/12/02	Goldman et al.	_____	_____	12/26/00

FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
_____	EP 1 067 757	01/10/01	Europe	_____	_____	X	_____
_____	WO 01/33277	05/10/01	WO	_____	_____	X	_____
_____	WO 02/31613 A2	04/18/02	WO	_____	_____	X	_____
_____	WO 02/31613 A3	04/18/02	WO	_____	_____	X	_____

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

_____	Levine, Martin D. 1985. <i>Vision in Man and Machine</i>. New York: McGraw-Hill, Inc. pp. ix-xii, 1-58.
_____	Pilu, Maurizio. September 2001. "Undoing Page Curl Distortion Using Applicable Surfaces." <i>IEEE International Conference on Image Processing</i>. Thessalonica, Greece.
_____	23 May 2003. Written Opinion for PCT/US01/24910.
EXAMINER	DATE CONSIDERED
	1/9/04

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

#13

SHEET 1 OF 1



INFORMATION DISCLOSURE CITATION IN AN APPLICATION

(PTO-1449)

ATTY. DOCKET NO.
006217
USA/Consilium/Consilium

SERIAL NO.
09/927,444

APPLICANT
Nicholas A. WARD et al.

FILING DATE
August 13, 2001

GROUP
2812

U.S. PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE
	5,655,951	08/12/97	Meikle et al.			09/29/95
	5,823,854	10/20/98	Chen			05/28/96
	5,859,975	01/12/99	Brewer et al.			08/09/96
	6,389,491	05/14/02	Jacobson et al.			03/23/99

FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No
	2,347,885 A	09/20/00	GB			X	
	WO 01/15865 A1	03/08/01	WO			X	

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	July 23, 2002. Communication Pursuant to Article 96(2) EPC for European Patent Application No. 00 115 577.9.
	October 15, 2002. International Search Report prepared by the European Patent Office for PCT/US02/19062.
EXAMINER	DATE CONSIDERED 1/19/04

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

#14

SHEET 2 OF 2

INFORMATION DISCLOSURE
CITATION IN AN
APPLICATION
(PTO-1449)

ATTY. DOCKET NO.
006217
USA/Consilium/Consilium

SERIAL NO.
09/927,444

RECEIVED

DEC 22 2003

APPLICANT
Nicholas A. WARD et al.

Technology Center 2100

FILING DATE
August 13, 2001

GROUP
2812

FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	PATENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	Translation	
						Yes	No

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	El Chemali, Chadi et al. July/August 2000. "Multizone uniformity control of a chemical mechanical polishing process utilizing a pre- and postmeasurement strategy." <i>J. Vac. Sci. Technol.</i> Volume 18, No. 4. pp. 1287 - 1296.
	March 5, 2001. "KLA-Tencor Introduces First Production-worthy Copper CMP In-situ Film Thickness and End-point Control System." http://www.kla-tencor.com/j/servlet/NewsItem?newsItemID=74 .
	2002. "Microsense II - 5810: Non-Contact Capacitance Gaging Module." www.adetech.com .
	08 August 2003. PCT International Search Report from PCT/US03/08513.
	14 October 2003. PCT International Search Report from PCT/US02/21942.
	20 October 2003. PCT International Search Report from PCT/US02/19116.
	23 October 2003. PCT International Preliminary Examination Report from PCT/US01/24910.
	"NanoMapper wafer nanotopography measurement by ADE Phase Shift." http://www.phase-shift.com/nanomap.shtml .
	"Wafer flatness measurement of advanced wafers." http://www.phase-shift.com/wafer-flatness.shtml .
	"ADE Technologies, Inc. - 6360." http://www.adetech.com/6360.shtml .
	"3D optical profilometer MicroXAM by ADE Phase Shift." http://www.phase-shift.com/microxam.shtml .
	"NanoMapper FA factory automation wafer nanotopography measurement." http://www.phase-shift.com/nanomapperfa.shtml .

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.